REMARKS

This paper is responsive to any paper(s) indicated above, and is responsive in any other manner indicated below.

PENDING CLAIMS

Claims 1-13 were pending, under consideration and subjected to examination in the Office Action. Appropriate claims have been amended, canceled and/or added (without prejudice or disclaimer) in order to adjust a clarity and/or focus of Applicant's claimed invention. That is, such changes are unrelated to any prior art or scope adjustment and are simply refocused claims in which Applicant is present interested. At entry of this paper, Claims 1-3, 5-9 and 11-13 will be pending for further consideration and examination in the application.

Claim 1 is amended to include the contents of original claims 1 and 4, while canceling the original claim 4. Claim 7 is amended to include the contents of original claims 7 and 10, while canceling the original claim 10. Claims 2 and 8 describe both operations of (111,112,113) and (117,118,119) of Fig. 2.

REJECTION UNDER 35 USC '103

The 35 USC '103 rejection of claims 1-13 as being unpatentable over Manzado et al. (U.S. Patent 6,490,294) in view of Bussiere (U.S. Patent 6,041,042) is respectfully traversed. However, such rejections have been rendered obsolete by the present clarifying amendments to Applicant's claims, and accordingly, traversal arguments are not appropriate at this time. However, Applicant respectfully submits

the following to preclude renewal of any such rejections against Applicant's clarified claims.

All descriptions of Applicant's disclosed and claimed invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated hereat by reference. Further, all Office Action statements regarding the prior art rejections are respectfully traversed. As additional arguments, Applicant respectfully submits the following remarks.

Regarding differences between the cited references and Applicant's present invention, as mentioned in paragraphs [0002] to [0017] of this application's US2008/0095084A publication, Applicant's present invention relates to communication using a point-to-point protocol (PPP) prescribed in the RFC1661 standard. The above-mentioned PPP is used for the data -communication between a terminal and a data communication device.

The PPP includes an LCP (Link Control Protocol) and NCP (Network Control Protocol), and the basic operations using the PPP are connection/disconnection operations between devices.

A disadvantageous PPP connection operation is as follows.

(a) Link establishment using LCP

(b) User authentication using LCP

(c) Selection of network layer protocol selection and address assignment using NCP

In such disadvantageous PPP connection operation, the steps of (a), (b) and.

(c) are **performed sequentially**, which is prescribed in RFC1661, section 3.2 (a

copy of which was filed with the USPTO for the present application, as an IDS document).

Such sequential operation does not much affect the communication quality in a **wired communication** system, since once established connection is kept until the communication is completed. However, the sequential operation significantly affects the communication quality in the **mobile communication** system since the handover occurs as the mobile terminal moves, and the handover accompanies the PPP disconnection and connection operations. If the PPP connection takes time, it may cause communication interruption.

Applicant's present invention reduces the PPP connection time **by providing plural phase processing sections** and **performing the plural phase processes in parallel using plural phase processing sections**. To accomplish the same, the transmission-side apparatus combines and encapsulates the PPP connection phase control information items into one frame, to send it to the receiving-side apparatus. The receiving-side discriminates the respective phase control information items from the received frame, to send the items to the respective one of phase processing sections.

Regarding **Manzado** (US6,490,294B1), Manzado shows to perform an isochronous telecommunication over the packet-switched network. Further, Manzado shows the device relating to "point-to-point <u>connection</u>", but does not show any invention relating to "point-to-point <u>protocol</u>". More particularly, the "point-to-point" connection is one of hardware connection forms including "point-to-multipoint connection". That is, point- to-point protocol (PPP) is a <u>protocol</u>, while "point-to-point connection" is a hardware <u>connection form</u> (like a topology).

When the communication between two devices with "point-to-point connection" is performed, PPP <u>may</u> be used. However, Manzado does not disclose any data link layer communication and any protocol used for the communication. That is, Manzado is silent on any PPP process.

As further discussion, Manzado shows that the packetizer encapsulates and de-encapsulates isochronous data of the plural point-to-point connections like a multiplexer and a demultiplexer, in order to transmit the isochronous data over the packet-switched network (see column 10, lines 47 to 56 and column 11, lines 5 to 14). The isochronous data is not control data. Manzado does not show to encapsulate the plural phase information items into one frame which is shown in Figs. 7 and 9 of Applicant's present invention.

One important feature of Applicant's present invention is on the information items to be encapsulated, but not on the encapsulating process.

Office Action comments indicated that Manzado discloses the LCP phase processing unit on column 5, lines 51 to 54. However, Applicant respectfully submits that such Office Action comments appear to confuse **LTU (line trunk unit)** with **LCP (Link Control Protocol).** Manzado's LTU is one of the communication devices while LCP is one of protocols. Manzado does not show any LCP phase processing section.

Turning further to **Bussiere** (US6,041,042), Bussiere relates to a method and apparatus for remote monitoring of data on a communication network, wherein an administrator is able to remotely monitor the traffic on a port of a network device. The network administrator can establish a path between an ingress device having a mirror-from-port (to be monitored) and a remote analyzing port on an egress device

using management software. This path, coupled with encapsulation and de-encapsulation support, makes it possible for all traffic seen on the port being monitored to be transmitted to a remote location for analysis (column 2, lines 13 to 24).

Bussiere is silent on the data link layer communication and the protocol used for the communication. Still further, Bussiere does not show any PPP process, either.

Bussiere shows data encapsulation and de-encapsulation of the data to be monitored. However, the objects to be encapsulated or de-encapsulated are different from the Bussiere. That is, the encapsulation and de-encapsulation operations themselves are not feature of Applicant's present invention as mentioned above.

If Manzado is combined with Bussiere, there is no description about the communication using PPP. More particularly, they do not show plural PPP phase processing sections working in parallel, and encapsulation/discrimination of phase control information items for respective PPP phase processing sections. Accordingly, it is respectfully submitted that Applicant's present invention is different from the previously-applied references in object, structure, process and effect.

As a result of all of the foregoing, it is respectfully submitted that the applied art (taken alone and in the Office Action combinations) would not support a '103 obviousness-type rejection of Applicant's claims. Accordingly, reconsideration and withdrawal of such '103 rejection, and express written allowance of all of the '103 rejected claims, are respectfully requested.

EXAMINER INVITED TO TELEPHONE

The Examiner is herein invited to telephone the undersigned attorneys at the local Washington, D.C. area telephone number of 703/312-6600 for discussing any Examiner's Amendments or other suggested actions for accelerating prosecution and moving the present application to allowance.

RESERVATION OF RIGHTS

It is respectfully submitted that any and all claim amendments and/or cancellations submitted within this paper and throughout prosecution of the present application are without prejudice or disclaimer. That is, any above statements, or any present amendment or cancellation of claims (all made without prejudice or disclaimer), should not be taken as an indication or admission that any objection/rejection was valid, or as a disclaimer of any scope or subject matter. Applicant respectfully reserves all rights to file subsequent related application(s) (including reissue applications) directed to any/all previously claimed limitations/features which have been subsequently amended or cancelled, or to any/all limitations/features not yet claimed, i.e., Applicant continues (indefinitely) to maintain no intention or desire to dedicate or surrender any limitations/features of subject matter of the present application to the public.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above as presently being under consideration in the application are now in condition for allowance.

To the extent necessary, Applicant petitions for an extension of time under 37

CFR '1.136. Authorization is herein given to charge any shortage in the fees,

including extension of time fees and excess claim fees, to Deposit Account No. 01-

2135 (Case No. 500.46461X00) and please credit any excess fees to such deposit

account.

Based upon all of the foregoing, allowance of all presently-pending claims is

respectfully requested.

> Respectfully submitted,
>
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